

## 6. FURTHER CONTRIBUTIONS TO THE HELMINTHS OF WESTERN AUSTRALIAN STOCK.

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In a recent publication (1) the writer gave a list of species of helminths known to affect stock in this State. Since then the following additional species have been diagnosed:—

### A. CESTODES.

1. *Davainea echinobothridia* (Megnin, 1880), Blanchard, 1891.

Two specimens, presenting no unusual features other than that the genital pores were almost entirely unilateral (usually irregularly alternate).

Host.—Fowl: intestine.

Locality.—Northam, 23/7/27.

Remarks.—Apparently not previously recorded in Australia.

2. *Anoplocephala perfoliata* (Goeze, 1782).

Host.—Horse: caecum.

Locality.—Perth Zoo, 11/8/27.

Remarks.—Though, apparently, not an uncommon parasite of horses, there is no previous record of this species for W.A. Associated with this species were:—*Strongylus* spp., *Trichonema poculatum*, *Trichonema* spp., and *Gyalocephalus* sp.

### B. NEMATODES.

1. *Triodontophorus brevicauda* (Boulenger, 1916).

Four specimens, two males and two females, presenting no unusual features—all characters agree with those given in the original description of the species (2).

Host.—Horse: intestine.

Locality.—Fitzroy Crossing (Kimberley), 26/7/27.

Remarks.—These specimens, along with other species of Nematodes, were submitted by Murnane from a case of "Kimberley Horse Disease." This species has not been previously recorded in Australia.

2. *Triodontophorus minor* (Looss, 1900).

Four specimens, one male and three females. The characters exhibited by the specimens were identical with those given by Looss for this species, except that in all cases the anterior margins of the teeth were more or less deeply serrated. Boulenger (3), however, states that this feature is found in some individuals of the species.

Host.—As previous species.

Locality.—As previous species.

Remarks.—This species has not previously been recorded in Australia.

3. *Trichonema poculatum* (Looss, 1900).

Four specimens, one male and three females, presenting no special features.

Host.—Horse: caecum.

Locality.—Perth Zoo, 11/8/27.

Remarks.—Large numbers of *Trichonema* spp. were present in Caecum and Colon. The mucous membrane of the Caecum was pitted with small ulcers, some of which were haemorrhagic.

4. *Gyalocephalus* sp.

Only one specimen, female, was obtained. No specific identification was attempted.

Host.—As previous species.

Locality.—As previous species.

Remarks.—This genus has, apparently, not been recorded in Australia.

5. *Oesophagostomum venulosum* (Rud., 1809).

Three adult females, presenting no special features.

Host.—Sheep: colon.

Locality.—Broome Hill, 13/10/27.

Remarks.—Present in association with *Chabertia ovina*. Apparently this species has not previously been recorded in Australia.

6. *Onchocerca cervicalis* (Railliet & Henry, 1910).

Reference has been made previously to a species of *Onchocerca* commonly found in cases of fistulous withers in this State (1). Messrs. Weston and Le Souef kindly supplied the material from which specimens, to be described, were obtained. The material consisted of pathological tissue from an acute case of fistulous withers. The sinuses contained a serous type of pus in which were enormous numbers of worms, their extremities however being firmly embedded in the surrounding fibrous tissue. A portion of necrotic ligamentum nuchae also contained very numerous parasites.

No complete specimens were obtained (Railliet and Henry (4) described the species from incomplete worms). Portions including the anterior extremities of six females and posterior extremities of one female and two males, were examined.

Male.—Length undetermined, maximum diameter 160 microns; Railliet and Henry give 200 microns for this. The length of the oesophagus was not determined. Railliet and Henry give the following formula for caudal papillae:—Preanal 1; Paranal 4; Postanal two groups—two situated approximately midway between cloaca and point of tail two near caudal extremity. This arrangement was found in both specimens examined, though the first group of postanal papillae was very indefinite.

The lengths of the spicules were respectively approximately 370 microns and 110 microns (both specimens) quite in accord with the corresponding measurements given by Railliet and Henry.

Female.—Total length undetermined. Maximum breadth 350 microns—Railliet and Henry give 400 microns. There is one cuticular thickening to each three or four transverse striations. The length of the oesophagus in six specimens varied from 2.2 mm. to 2.3 mm.—Railliet and Henry give 2.4 mm.

The distance between the opening of the vulva and mouth varied from 550 to 600 microns—Railliet and Henry give 375 to 410 microns.

The only notable point of difference between the local specimens and *Onchocerca cervicalis*, as described by Railliet and Henry, is that the vulva opening is situated somewhat more posteriorly in the former. However, I think a definite diagnosis of *O. cervicalis* for the local species is warranted.

Host.—Horse: fistulous wither—in ligamentum nuchae, sinuses, and inflammatory fibrous tissue.

Remarks.—Not previously recorded, as such, in Australia.

#### BIBLIOGRAPHY.

- (1) **Bennetts**—"The Helminths of W.A. Stock." Series I. Proc. Royal Society, W.A., XIII., 1926-27, pp. 49-60.
- (2) **Boulenger**—"Sclerostome Parasites of the Horse in England." Parasitology VIII., 1915-16, pp. 430-432.
- (3) **Boulenger**—"Strongylid Parasites of Horses in Punjab." Ibid. XIII., 1921, p. 317.
- (4) **Railliet and Henry**—"Les Onchocerques Nematodes Parasites du Tissu Conjunctif." Compt. Rend. des Seances de la Soc. Biol. LXVIII., 1910, p. 249.